



AMENDMENTS TO THE CLAIMS

Claims 1-16 (cancelled)

Claim 17 (new) An assembly for enabling separation of a fluid sample into first and second phases, comprising:

a tube having a bottom, a top, and a cylindrical sidewall therebetween,

a separator located in the tube, the separator comprising:

a deformable bellows having an upper end and a lower end, and a sealing portion of the bellows between the upper end and the lower end providing sealing engagement with the cylindrical sidewall of the tube,

a ballast engaged with a portion of the bellows, the ballast having a density greater than the density of the first phase,

a float engaged with a portion of the bellows, the float having a density less than the density of the first phase,

wherein application of centrifugal forces to the tube promotes elongation of the bellows such that the sealing portion is able to move out of sealing engagement with the cylindrical sidewall.

Claim 18 (new) The assembly of claim 17, wherein the ballast is secured to the bellows at a location proximate the lower end of the bellows.

Claim 19 (new) The assembly of claim 17, wherein the float is engageable with portions of the bellows proximate the upper end of the bellows.

Claim 20 (new) The assembly of claim 17, wherein the ballast is secured to the bellows at a location proximate the lower end of the bellows, wherein the float is engageable with portions of the bellows proximate the upper end of the bellows, and wherein upon application of centrifugal force, the ballast and the float exert opposing forces on the bellows to provide the elongation.

Claim 21 (new) The assembly of claim 17, wherein the sealing portion of the bellows between the upper end and the lower end is a toroidal sealing section.

Claim 22 (new) The assembly of claim 18, wherein the ballast is substantially tubular.

Claim 23 (new) The assembly of claim 19, wherein the float is substantially hollow.

Claim 24 (new) The assembly of claim 19, wherein the bellows is substantially hollow and comprises an inwardly directed annular bead proximate the upper end of the bellows, and wherein the float comprises an annular groove engageable with the annular bead of the bellows.

Claim 25 (new) The assembly of claim 17, wherein the tube comprises a closure at its top end, and wherein the separator is releasably engaged to the closure.

Claim 26 (new) The assembly of claim 25, wherein the closure comprises a lower end comprising a recess, and wherein the bellows comprises a section releasably engageable with the recess.

Claim 27 (new) The assembly of claim 26, wherein the recess comprises deflectable arc sections, and wherein the bellows comprises a groove releasably engageable with the deflectable arc sections.

Claim 28 (new) The assembly of claim 17, wherein the bottom end of the tube comprises an opening having a closure engaged therein.

Claim 29 (new) The assembly of claim 24, wherein the upper end of the bellows comprises a conical shape.

Claim 30 (new) The assembly of claim 17, wherein at least a portion of the float is arranged inside the bellows, and wherein at least a portion of the ballast is arranged outside the bellows.

Claim 31 (new) An separator for enabling separation of a fluid sample into first and second phases within a tube, comprising:

a deformable bellows having an upper end and a lower end, and a sealing portion of the bellows between the upper end and the lower end providing sealing engagement with a cylindrical sidewall of the tube,

a ballast engaged with a portion of the bellows, the ballast having a density greater than the density of the first phase,

a float engaged with a portion of the bellows, the float having a density less than the density of the first phase,

wherein application of centrifugal forces to the tube promotes elongation of the bellows such that the sealing portion is able to move out of sealing engagement with the cylindrical sidewall.

Claim 32 (new) The assembly of claim 31, wherein the ballast is secured to the bellows at a location proximate the lower end of the bellows.

Claim 33 (new) The assembly of claim 31, wherein the float is engageable with portions of the bellows proximate the upper end of the bellows.

Claim 34 (new) The assembly of claim 31, wherein the ballast is secured to the bellows at a location proximate the lower end of the bellows, wherein the float is engageable with portions of the bellows proximate the upper end of the bellows, and wherein upon application of centrifugal force, the ballast and the float exert opposing forces on the bellows to provide the elongation.

Claim 35 (new) The assembly of claim 31, wherein the sealing portion of the bellows between the upper end and the lower end is a toroidal sealing section.


Claim 36 (new) The assembly of claim 32, wherein the ballast is substantially tubular.

Claim 37 (new) The assembly of claim 33, wherein the float is substantially hollow.

Claim 38 (new) The assembly of claim 33, wherein the bellows is substantially hollow and comprises an inwardly directed annular bead proximate the upper end of the bellows, and wherein the float comprises an annular groove engageable with the annular bead of the bellows.

Claim 39 (new) The assembly of claim 31, wherein the tube comprises a closure at its top end, and wherein the separator is releasably engaged to the closure.

Claim 40 (new) The assembly of claim 39, wherein the closure comprises a lower end comprising a recess, and wherein the bellows comprises a section releasably engageable with the recess.



Claim 41 (new) The assembly of claim 40, wherein the recess comprises deflectable arc sections, and wherein the bellows comprises a groove releasably engageable with the deflectable arc sections.

Claim 42 (new) The assembly of claim 31, wherein the bottom end of the tube comprises an opening having a closure engaged therein.

Claim 43 (new) The assembly of claim 38, wherein the upper end of the bellows comprises a conical shape.

Claim 44 (new) The assembly of claim 31, wherein at least a portion of the float is arranged inside the bellows, and wherein at least a portion of the ballast is arranged outside the bellows.

Claim 45 (new) An assembly for enabling separation of a fluid sample into first and second phases, comprising:

a tube having a bottom, a top, and a cylindrical sidewall therebetween, the bottom and the top having openings with closures engaged therein,


a separator located in the tube, the separator comprising:

a deformable section comprising a sealing region, the sealing region providing sealing engagement with the cylindrical sidewall of the tube,

a ballast section engaged with the deformable portion, the ballast section having a density greater than the density of the first phase,

a float section engaged with the deformable portion, the float section having a density less than the density of the first phase,

wherein application of centrifugal forces to the tube promotes elongation of the deformable section such that the sealing region is able to move out of sealing engagement with the cylindrical sidewall.

 Claim 46 (new) The assembly of claim 45, wherein the deformable section comprises a deformable bellows having an upper end and a lower end, at least a sealing portion of the bellows between the upper end and the lower end providing sealing engagement with the cylindrical sidewall of the tube, wherein the ballast section comprises a ballast engaged with a portion of the bellows, and wherein the float section comprises a float engaged with a portion of the bellows.
